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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,870	12/21/2001	Francis Briand	S 5132	4676

466 7590 08/29/2003

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9  
EXAMINER

SHAW, CLIFFORD C

ART UNIT	PAPER NUMBER
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1725

DATE MAILED: 08/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/023,870

Applicant(s)

BRIAND ET AL.

Examiner

Clifford C Shaw

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

**Detailed Action**

1.) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2.) Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsui et al. (5,525,778). Figure 10 and the discussion at column 11, line 40 through column 13 of the patent to Matsui et al. disclose a method and device with an arrangement to determine pulse frequency at 61, an arrangement to determine wire feed speed at 44, and a current adjustment means 66 which will necessarily determine the mean or rms values of the welding current. The claims differ from Matsui et al. in setting forth an equation relating wire feed speed to current values and in calling for welding particular metals in the dependent claims. These differences do not patentably distinguish over the prior art. As discussed above, it is not entirely clear what is meant by the equations in applicant's claims. However, to the extent that these equations relate arc current to wire feed speed, they are expressing the fact that when consumable wire electrode arc welding is in a steady state, the wire melting rate (as indicated by the current parameters in the claim) must be in balance with the wire feed rate. It is considered obvious that the system of Matsui et al. will be operated in a steady state since this is the most efficient way to weld. If it is operated in a steady state, then the wire melting rate will be in balance with the wire feed rate and obviously the equations that applicant intends in his claims will be satisfied. In regard to the

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particular metals set forth in the claims, it would have been obvious to have used the arrangement of Matsui et al. to weld any well known metals, including those claimed, the motivation being to secure the advantages of Matsui et al. for those metals.

3.) Applicant's remarks in his amendment filed on 6/26/2003 have been given careful consideration, but are not persuasive of patentability. The rejection under 35USC112, first paragraph has been reconsidered. Since applicant's claims specify that the current variables are in units of amps and the speed variable is in units of m/min, it would be within the level of ordinary skill in the art to determine that the units of B1 and B2 must be in amps and the units of A1 and A2 must be in (amps x min) / m .

In regard to the rejection based on the prior art, applicant argues that "Matsui et al. are silent about any existing relationship between I values and wire speed". This argument is not persuasive of patentability. Applicant's claims do not include any explicit step of solving the equations presented in order to set the value of current or wire feed speed. The claims are broadly enough cast that the equations merely describe the physical situation that obtains when welding in a steady state with a consumable electrode. Since Matsui et al disclose a steady state welding situation, the equations presented by applicant will obviously apply, even though they are not explicitly set forth in Matsui et al. If applicant wishes to distinguish over this interpretation, he should amend the claims to explicitly set forth the step of solving the given equations in order to determine the value of the welding parameters therein.

**4.) THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

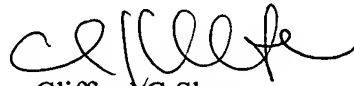
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Clifford C Shaw at telephone number 703-308-1712. The examiner can normally be reached on Monday through Friday of the first week of the pay period and on Tuesday through Friday of the second week of the pay period.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Thomas G. Dunn, can be reached at 703-308-3318. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Clifford C Shaw  
Primary Examiner  
Art Unit 1725

August 25, 2003